6. Safety Strategic Goal

"Promote public health and safety by working toward the elimination of transportation-related deaths and injuries"

6.1 Outcomes

1. Reduce transportation-related deaths

2. Reduce transportation-related injuries

6.2 Strategies

Safety is President Clinton's and Vice President Gore's top transportation priority, our chief strategic goal and the North Star by which we are guided and willing to be judged. Transportation makes possible the movement of people and goods, fueling our economy and improving the quality of life. At the same time, it exposes people and property to the risk of harm. While we have made great progress in making travel safer during the past seven years, we remain committed to improving the benefits of transportation and to reducing the threats transportation poses to the safety and well being of the American people.

We will employ seven broad strategies to achieve our safety outcomes – reducing transportation-related fatalities and injuries. We will: 1) build safety into the transportation infrastructure; 2) conduct research on critical safety issues; 3) continue Vice President Gore's reinventing government initiative to advance standards and regulations that allow innovation while improving safety levels; 4) mitigate the consequences of safety incidents through more effective response; 5) create incentives for improving safety; 6) educate the public on the benefits of safe transportation; and 7) provide timely analyses and forecasts of safety trends and issues.

Taken together, these strategies create a climate for innovation in transportation safety. We will consult and collaborate with an ever-widening group of stakeholders, increase safety R&D, conduct our business using web-enabled and other new technologies, provide incentives to reduce barriers to innovation, and educate the next generation of transportation professionals – a new way of doing business. These strategies address the needs of all transportation users including both motorized and non-motorized modes.

The resources and programs listed in DOT's Annual Performance Plan and budget are necessary to achieve the safety outcomes presented above and execute the strategies presented below. Each year, DOT reassesses its performance goals based on appropriations. The schedule for executing the strategies extends from the present through 2005. We will continue to benchmark and improve processes and move quickly toward electronic government to improve our efficiency and customer service. Each of the following strategies supports, our dual safety outcomes – to reduce transportation fatalities and injuries.

6.2.1 Infrastructure Strategy: Work with government, non-government entities and the private sector to build and maintain infrastructure that improves safety for motorized and non-motorized users through:

a. Research to understand the interrelationships among vehicles, infrastructure, the environment and the operator in causing transportation crashes and incidents;
b. Incorporation of safety into design of and transition to new systems;
c. Incorporation of new safety-enhancing technologies such as intelligent transportation systems, vehicle flow controls and other technologies; and
d. Developing and refurbishing transportation infrastructure to accommodate safely the full range of transportation users under all weather conditions.

6.2.2 Research and Development Strategy: Collaborate with public and private transportation providers and academia, to support, promote, and conduct national and international research on transportation safety in all modes targeting:

a. The understanding of human performance and behavior affecting safety such as fatigue;
b. New technologies such as ITS, automation, instructional technologies and advanced vehicle controls that improve operator performance and reduce safety risk; and
c. Causes of and countermeasures for transportation-related incidents.

6.2.3 Standards, Regulations and Enforcement Strategy: Collaborate with all interested stakeholders to develop and promote performance-based national and international safety standards and regulations that:

a. Improve the design, construction, and maintenance of infrastructure, vehicles, and transportation systems that will be safe under adverse weather and geological conditions;
b. Update licensing standards, training, working conditions, and operator requirements for safe operation of vehicles by commercial and personal operators;
c. Are simplified, written in plain English and other languages as needed, address the highest risk problems, use third party or self-certification when appropriate, and are supported by strong certification standards;
d. Achieve more uniformity and equity in federal, state, and local transportation safety rules and enforcement;
e. Provide flexibility and allow for innovation and incentives that improve transportation safety;
f. Address the risks associated with the precursors of fatalities and injuries;
g. Promote safety standards that anticipate application of new technologies in the increasingly complex technological operating environment of transportation;
h. Promote performance-based standards to accelerate the deployment of new safety infrastructure, equipment, systems and vehicle technologies;
i. Lead to the adoption of stronger and better harmonized international safety standards and enforcement; and
j. Consider the unique safety needs of bicyclists, pedestrians and motorcyclists.

6.2.4 Response Strategy: Mitigate the negative consequences of safety incidents by partnering with stakeholders to:

a. Research and expand the use of technologies and equipment that improve the survivability of people and the timeliness of incident detection;

b. Plan and rehearse response strategies with other federal, state and local emergency response authorities; and
c. Develop and promote standards for industry, state and local emergency response authorities to use to improve coordinated emergency response.

6.2.5 Incentives Strategy: Collaborate with transportation safety advocates, builders, operators and users to explore incentives for improving safety targeting:
a. Financial and other inducements for private and public organizations to purchase and use innovative safety equipment and practice safe behavior;
b. The feasibility of third-party or self-certification of safety compliance for private and commercial operators;
c. The impact of human factor errors on transportation safety; and
d. Cost-shared, private-public partnerships to accelerate the development, demonstration and deployment of new safety technologies and systems.

6.2.6 Public Information and Education Strategy: Expand alliances with a wide range of public and private organizations from schools to operators to advocates and communicate the advantages of safe behavior and practices including:
a. Targeted education and information on safe behavior and practices, (for example, safe vehicle operation, driver education, pedestrian and bicycle safety, seat belt use, alcohol and drugs, and undeclared hazardous materials in passenger luggage on aircraft) to promote public demand for safer transportation and to reduce transportation crashes and incidents;
b. Telecommunications, web-enabled technologies and electronic training packages to provide transportation safety information to the public in formats they understand; and
c. Risk-based management and best practices approaches to solving common transportation safety problems at the international, national, regional, state, and local levels.

6.2.7 Information Sharing and Analysis Strategy: Collaborate to collect and share information on actual and potential causes of transportation incidents with those who can prevent or mitigate future incidents through:
a. Use of web-enabled and other new technologies to increase the timeliness, validity, and reliability of safety data gathered throughout the transportation enterprise;
b. Collection, analysis, and publication of transportation safety data and information to update and track safety trends and issues;
c. Encouragement of voluntary submission of information on potential causes of transportation incidents through legislation, regulations, and policy guidance, and protection of the information and its sources; and
d. Education and information exchange on best practices in safety technology and operations.

6.3 Management Challenges

Safety is DOT's top priority and any discussion of the future of transportation must begin with a focus on safety. The strategies articulated in the previous section represent our approach to future transportation safety challenges. However, achievement of DOT's safety outcomes – reducing transportation fatalities and injuries – is contingent upon addressing the safety management challenges identified by the General Accounting Office (GAO) and DOT's Office of Inspector

General (OIG). The language that describes each challenge is essentially the language used by the OIG.

6.3.1 Aviation Safety[1]

The OIG has stated that…the FAA must address known risks, and the challenges of identifying and addressing unknown risks that otherwise may cause future accidents. The OIG stated that safety must take priority over the impact of increased demand, new technologies and budget cuts and listed safety issues that the FAA should address.

FAA needs to follow through, and establish and implement procedures to ensure U.S. air carriers perform thorough and relevant safety assessments as part of the code share approval process:

- FAA will need to: implement new education and training programs for controllers, pilots, and vehicle operators to increase their awareness of ground safety at the airport; improve procedures, airport markings and lighting to foster safer airport movement by pilots and vehicles; and implement technology-based initiatives to assist controllers in preventing runway accidents;
- The number of air traffic operational errors and deviations is a major risk to a safer aviation system. FAA must provide increased training to non-supervisory air traffic controllers acting as controllers-in-charge on their new roles and responsibilities for ensuring safe air traffic operations;
- FAA should implement its new Air Transportation Oversight System (ATOS) inspection process for air carriers and improve the accuracy of safety databases; and
- FAA should implement the flight operation quality assurance (FOQA) program to advance aviation safety by obtaining better safety data from air carriers.

The FAA has acknowledged these aviation safety concerns and has developed an agenda for the years 2000-2005 that includes the following milestones.

> *Milestone: Publish a final rule requiring installation and use of Terrain Awareness Warning System (TAWS) in commercial aircraft cockpits to help prevent controlled flight into terrain. TAWS final rule published in the Federal Register on March 29, 2000.*
> *Milestone: Complete Air Traffic Controller Controlled Flight Into Terrain (CFIT) training through publication of an Air Traffic Bulletin. Issue CFIT training aid for operators. (FY 2000)*

> *Milestone: FAA efforts to reduce runway incursions are detailed in the Runway Incursion Program Implementation Plan, published in April 1999. Milestones over the next several years are to implement a host of tasks identified in the plan for each year (Ongoing through 2004).*
> *Milestone: Concerning ATOS, in FY 2000 FAA is developing job aids and a*

[1] All management challenges throughout the Strategic Plan are from a letter to Chairman Fred Thompson, Senate Governmental Affairs Committee from Kenneth M. Mead, DOT Inspector General dated December 17, 1999.

Standardization Seminar to be attended by all Certificate Management Team members. (FY 2000)
Milestone: Complete a "Continuous ATOS Development Plan" to address Phase I implementation issues and move toward expanding ATOS to new carriers in Phase II. (FY 2001)
Milestone: Implement Phase II of ATOS, to include inspector training, automation enhancements, and expansion of ATOS to new carriers. (FY 2003)
Milestone: FAA will determine the feasibility of expanding ATOS beyond Federal Aviation Regulations, part 121 - air carriers. (FY 2002)
Milestone: FAA is moving forward on the Aviation Safety Action Program (ASAP). In FY 2000, FAA is revising the Advisory Circular, publishing a Handbook Bulletin on implementation, and approving ASAPs submitted by air carriers. (FY 2000)

6.3.2 Surface Transportation Safety

The OIG has raised several surface transportation safety management challenges. He stated that motor vehicle, railroad, and transit accidents account for over 42,000 deaths annually – more than 90 percent of all transportation-related fatalities. The OIG further stated that in 1998, more than 15,000 hazardous materials incidents were reported to the Department, including 429 serious incidents resulting in 13 deaths and 66 injuries.

Motor Carriers

The Motor Carrier Safety Improvement Act of 1999 provides DOT with the tools needed to improve motor carrier safety, including the establishment of the Federal Motor Carrier Safety Administration (FMCSA). The key to success will be leadership, vision, and implementation of the legislation. The OIG has stated that implementation should include efforts to: strengthen the enforcement program; improve the quality and timeliness of safety performance data; identify unsafe motor carriers; analyze crash data; and standardize crash data collection procedures.

FMCSA has acknowledged these safety concerns. The FMCSA safety agenda includes the following milestones.

Milestone: FMCSA and NHTSA will begin a three-year study of crash causation in FY 2000. The pilot study will be completed in FY 2001.
Milestone: FMCSA will provide additional funding for the Motor Carrier Safety Assistance Program for FY 2001-2003 for increased state roadside inspections, compliance reviews, and traffic enforcement.
Milestone: FMCSA will establish links between state motor carrier registration systems and federal safety information systems by adding three to five new states to the Performance and Registration Systems Management (PRISM) program each year.
Milestone: FMCSA will increase the number of compliance reviews performed by safety investigators to an average of four to five per month by FY 2000.
Milestone: FMCSA will strengthen enforcement by completing a rulemaking by 12/00 to allow for suspension of carrier registrations for failure to pay safety fines.

The OIG has stated that a number of Mexican motor carriers have limited experience operating within U.S. safety standards and that Mexican domiciled carriers are operating improperly in the U.S.

FMCSA has acknowledged these safety concerns and has included the milestone presented below in its safety agenda.

> *Milestone: FMCSA will publish a final rule by FY 2001 to establish new operating authority requirements and procedures for Mexican motor carriers and impose new penalties for motor carriers operating beyond their authority.*

The OIG has stated that fatigue is a major factor in commercial vehicle crashes. Driver hours-of-service violations and falsified driver logs pose significant safety concerns. The OIG believes that the use of electronic recorders and other technologies to manage the drivers' hours-of-service requirements have significant safety value and could be accomplished if they were phased in over a period of years and coupled with a revised hours of service rule.

FMCSA has acknowledged the fatigue issue through the milestone below.

> *Milestone: FMCSA will issue a Notice of Proposed Rulemaking for new driver hours-of-service regulations which include the use of electronic logbooks in FY 2000.*

FMCSA has acknowledged that technology holds the promise of improving motor carrier safety. The development of on-board truck diagnostic and collision warning systems require further development and testing before they can be introduced into the commercial motor carrier fleet. The Intelligent Vehicle Initiative, Commercial Vehicle Platform, is accelerating the introduction of new technologies in partnership with major vehicle manufacturers. To address these safety concerns, the FMCSA safety agenda includes the following milestones:

> *Milestone: FMCSA will complete real-world operational tests by FY 2002 on truck rollover stability, hazard warning systems, collision warning, and advanced braking systems.*
> *Milestone: FMCSA will deploy Commercial Vehicle Information Systems and Networks in a majority of states by FY 2003.*
> *Milestone: FMCSA will pilot a brake-testing device in FY 2001. If successful, this technology could improve the efficiency of roadside inspections.*

The OIG has stated that the Motor Carrier Safety Improvement Act makes enhancements to the commercial driver's license program. However, DOT must establish plans for completing the rulemakings required to implement these enhancements. Federal oversight must ensure that States take timely action to disqualify commercial drivers who commit the offenses prohibited in the new Act and in previous legislation.

FMCSA has acknowledged these safety concerns, and included the following milestone in its safety agenda.

> *Milestone: FMCSA will complete a Notice of Proposed Rulemaking to implement the commercial drivers license improvements by 12/00.*

Rail Crossings

The OIG has stated that further safety improvements at rail-highway grade crossings are required since serious crossing accidents continue to occur. To help achieve DOT's accident and fatality reduction goal, the FRA and the FHWA need to target limited resources to proven, cost-effective strategies, such as installation of median barriers; use of well-advertised photo enforcement particularly at problematic crossings; and imposition of stricter penalties to deter drivers from ignoring signals and bypassing existing safety devices.

The FRA has acknowledged these rail crossing safety concerns through a three-pronged strategy: education; enforcement; and technological innovations that have been proven effective. The FRA will accomplish the following milestones.

> *Milestone: To help target high-risk crossings for corrective action, FRA will make its highway-rail crossing computer file available on the Internet for use by States and local governments in FY 2000.*
> *Milestone: FRA will increase its funding ($500,000) for a new, nationwide, public outreach program, focusing geographically and demographically on those States reporting the most grade crossing and trespasser fatalities in FY 2000.*

The FRA and FHWA have acknowledged rail crossing safety concerns and included the following milestones in their safety agendas.

> *Milestone: DOT's Intermodal Highway Rail Crossing Team will develop guidance to assist state and local engineers to determine the most appropriate traffic control devices or grade separation for highway rail grade crossings in CY 2001.*
> *Milestone: DOT's Intermodal Highway Rail Crossing Team will develop best practices, procedures, and guidance that will establish maximum thresholds for the vertical alignment of highway rail crossings in CY 2001.*

Hazardous Materials

The OIG has stated that a DOT Hazardous Materials Program Evaluation found that each operating administration runs its own hazardous materials program, that there is no focal point for establishing DOT-wide goals for hazardous materials, and that the Department lacks a mechanism for quickly addressing problem areas or obtaining data to make informed programmatic decisions.

DOT has acknowledged this safety challenge and has responded by placing the focal point for hazardous materials administration and delivery under the leadership of the Associate Deputy Secretary and Director, Office of Intermodalism. The Associate Deputy Secretary will be supported in implementing the milestones below by a ONE DOT team with expertise in the transportation of hazardous materials.

Milestone: Develop a plan to implement all the recommendations contained in the Evaluation of the DOT Hazardous Materials Compliance and Enforcement Program in FY 2001.[2]
Milestone: DOT will implement the new organizational structure recommended in the evaluation in CY 2000.

Pipeline Safety
The OIG has observed that because the consequences of a pipeline rupture can be catastrophic, there is a critical need for DOT to continue to enforce pipeline safety laws and implement recommendations to strengthen pipeline safety programs. The OIG stated that provisions for consideration during reauthorization of the pipeline safety program should include: improving accident data collection and analysis; establishing periodic testing requirements; and expanding research and internal RSPA expertise on new technologies to detect pipeline defects.

RSPA has acknowledged these safety concerns and has proposed two milestones.

Milestone: Pipeline program reauthorization legislation introduced FY 2000.
Milestone: Increased funding for state pipeline safety programs FY 2001.

The OIG has stated that the Pipeline Safety Act of 1992 required regulations be issued by 1994 to place greater emphasis on environmental protection and expand the zone of concern beyond highly-populated areas. RSPA has not issued regulations establishing criteria to identify, map, and periodically inspect hazardous liquid pipelines located in areas unusually sensitive to environmental damage from a pipeline accident.

RSPA has acknowledged these challenges and has proposed regulations that define areas unusually sensitive to environmental damage. These rules must be finalized before complementary rules can take affect. RSPA has proposed the following milestones.

Milestone: Proposed rule concerning protection in high consequence areas for large liquid pipelines FY 2000; Final rule FY 2001.
Milestone: Final rule defining unusually sensitive areas FY 2001.

6.4 Completed Program Evaluations

Befitting an agency whose top priority is safety, DOT evaluated several of its safety programs aimed at reducing transportation fatalities and injuries. The program evaluations presented below reinforce DOT's commitment to improving transportation safety. DOT considered the results of the evaluations in developing the strategies in section 6.2. For example, the results of the motor carrier compliance review contributed to our standards, regulations and enforcement strategies in section 6.2.3. The results of all of the safety program evaluations contribute to the outcomes of reducing transportation fatalities and injuries.

6.4.1 Lap/Shoulder Belts in the Back Outboard Seating Positions (NHTSA 1999): This evaluation found that lap/shoulder belts reduce fatality risk by 15 percent relative to lap only-belted back seat occupants of passenger cars. The results supported programs to increase lap/shoulder safety belt usage by back seat occupants.

[2] Please see the evaluation in section 6.4.7

6.4.2 Highway Safety Assessment (NHTSA 1998): This evaluation found that federal highway safety grants were used by states to address safety priorities as intended by Congress.

6.4.3 Center High Mounted Stop Lamps in Passenger Cars and Light Trucks (NHTSA 1998): This evaluation found that cars equipped with center high mounted stop lamps are 4.3 percent less likely to be struck in the rear than cars without lamps, verifying a regulation.

6.4.4 Relationship of Vehicle Weight and Size to Fatality Risk in Passenger Cars and Light Trucks (NHTSA 1997): This evaluation found that although reductions in size and weight of passenger cars are associated with net increases in crash fatalities, when light trucks are reduced in size and weight, they become less hazardous to car occupants, pedestrians, bicyclists and motorcyclists.

6.4.5 Fatality Reduction by Air Bags (NHTSA 1996): This evaluation found that driver air bags reduce overall fatality risk by approximately 11 percent, supporting agency programs to inform the public.

6.4.6 Safe Miles and Compliance Review (CR) Assessment Models (FMCSA 1999): The goal of this evaluation was to measure the effectiveness of key safety programs on reducing crashes involving motor carriers. The evaluation confirmed the desirability of increasing on site compliance reviews and roadside inspections to reduce motor carrier fatalities and injuries. The initial safe miles model estimated total 1996 program benefits from the roadside inspection program to be $86 million. The initial CR model estimated that for the 8,111 motor carriers receiving CRs in 1996, 4,317 crashes were avoided in 1996-1998, resulting in a societal benefit of about $580 million, as the direct result of FHWA/Office of Motor Carrier and Highway Safety's compliance review intervention.

6.4.7 DOT-Wide Hazardous Materials Compliance and Enforcement Program (OIG, USCG; FAA, FMCSA, FRA, RSPA 1999): A ONE DOT team representing five operating administrations and the OIG evaluated DOT's hazmat program. The objectives of the study were to assess the effectiveness of the program in each step of the transportation process, recommend improvements and identify areas for further study. Five major findings were: 1) lack of DOT-ide oversight of OA's responsible for ensuring hazmat safety; 2) shippers of hazmat receive less attention than carriers yet they offer the greatest opportunity to improve safety; 3) human error is the greatest contributing factor to hazmat incidents; 4) DOT lacks reliable and accurate data to measure program effectiveness; and 5) there are a number of areas requiring further study including undeclared shipments, adequacy of current regulations, hazmat shipments in the U.S. mail, DOT's inspection authority, and lack of program performance measures.

6.4.8 The Safety Assurance and Compliance Program: Mid-Year 1999 Report (FRA 1999): This mid-year evaluation demonstrated that FRA had significant success through its Safety Assurance Compliance Program in reducing rail-related fatalities, employee casualties, grade crossing deaths, and the train accident rate over the five year period 1993-1998.

6.5 External Factors

DOT used four future scenarios[3] in the planning process to illustrate how external factors might plausibly impact transportation in the next 30 years. Globalization, demographics, the U.S. economy and the role of government were the major dimensions of the scenarios. We learned that these and many other external factors, such as the speed at which new technologies are widely adopted, may play a part in our ability to achieve our safety outcomes. Unable to predict how these factors will interact to effect transportation in the future, we have outlined both the positive and negative safety consequences. Thus, all the external factors presented below could affect our ability to achieve our safety outcomes, the reduction of transportation fatalities and injuries.

6.5.1 Economic Factors

Continuing economic prosperity will stimulate demand for transportation, increased commerce and tourism both nationally and internationally, and a greater diversity of forms of transportation. It may also generate more trips and resultant congestion which present new safety challenges related to issues such as adequacy of systems maintenance, compatibility among designs, different users including non-motorized users, new vehicles, and system interoperability.

Greater private investment in transportation creates new safety challenges to establish and maintain uniform, acceptable levels of safety in system designs and practices particularly in light of the rapid globalization of the transportation industry.

Expansion and integration of the telecommunications and e-commerce industry sectors with transportation systems raises new challenges related primarily to unsafe user practices such as use of cell phones and other office and personal devices while driving.

6.5.2 Technological Factors

Adaptation of new materials, alternative fuels, and consumer electronics to transportation systems offers the potential to reduce the number and severity of safety-related incidents. It also raises possible new concerns related to safety-worthiness of system designs.

Increased technological complexity of transportation systems offers the potential to reduce the frequency of serious transportation incidents, but because it may be more difficult to operate complex systems, incidents attributable to human operator error could increase.

Increased use of technology for comfort and convenience purposes may benefit transportation system users, but could also lead to increased safety risks in the operating environment.

6.5.3 Political Factors

Growing involvement and influence of state and local governments, private industry, and communities in safety policy implementation increases the opportunity for safety gains, but also increases the number of stakeholders who must collaborate and cooperate making it more difficult to gain consensus.

Emergence of transnational corporations and globalization of markets raises concerns about maintaining safety standards in system design and use across national

[3] DOT's global transportation scenarios are at www.dot.gov/stratplan

borders, and will stimulate demand for further harmonization of international safety standards related to system design and use as well as operator training.

Increasing public concern for safety will stimulate increased government oversight, public and private investment in safety design and practices, and a societal shift toward safer behaviors and attitudes.

6.5.4 Environmental Factors

An increase in the incidence of severe, adverse weather conditions based on global warming predictions may lead to more serious and frequent transportation incidents, due to extreme and unsafe travel situations for transportation system users.

Increasing demands for environmentally-compatible designs and practices may contribute to safety or, in some cases, may compromise safety in transportation systems.

6.5.5 Social Factors

The aging of the U.S. population will present new safety challenges such as increased congestion in our transportation systems. To improve safety levels, the special needs and risks associated with the use of these systems by elderly citizens must be taken into account when designing and building new vehicles and infrastructure.

A changing ethnic mix in the population will introduce new barriers, such as language barriers and differing cultural norms, to achieving better transportation safety practices among the traveling public and in commercial transportation.

The migration of the population to the Southern and Western states in the U.S., and the continued shift away from central core cities to suburban and non-urban areas, could increase the use of and expose risks in, transportation systems.

Existing transportation patterns are likely to shift in unpredictable ways due to increased telecommuting, video and teleconferencing, mobile offices, with implications for traffic congestion, sprawl containment, and home relocation to urban cores.

6.6 Relationship Between Strategic Plan Outcomes and Performance Plan Candidate Measures

Each safety outcome in this Strategic Plan for 2000-2005 will be supported by one or more safety performance measures fully developed in DOT's Annual Performance Plans for the fiscal years 2002-2005. DOT's Annual Performance Reports will provide targets, narrative and quantitative information on the extent to which we have achieved our safety outcome goals. Table 6.6 below illustrates the relationships between the outcomes in the Strategic Plan and the measures in the Performance Plan. The measures presented in Table 6.6 are candidates for the Performance Plan and not final selections.

Table 6.6 Safety Strategic Goal, Outcomes and Performance Plan Candidate Measures

"Promote public health and safety by working toward the elimination of transportation-related deaths and injuries."

Outcomes	Performance Plan Candidate Measures
Reduce transportation-related deaths The President's goal to reduce alcohol-related fatalities to no more than 11,000 by 2005. Reduce U.S. aviation fatal accident rates by 80 percent by 2007 The President's goal to reduce child fatalities by 25 percent by 2005 Reduce motorcycle-related fatalities by 5% by 2005 Reduce single vehicle run off road-related fatalities by 15 percent by 2005 Reduce speed-related fatalities by 5 percent by 2005 Reduce commercial truck-related fatalities by 50 percent by 2010 Reduce bicyclist and pedestrian fatalities by 10 percent by 2005 and further reduce the pedestrian fatality rate from two per 100,000 population to one per 100,000 population by 2010 Reduce transportation-related injuries The President's goal to increase seat belt use to 90% by 2005 Reduce bicyclist and pedestrian injuries by 10 percent by 2005 and further reduce the pedestrian injury rate from 30 per 100,000 population to 20 per 100,000 population by 2010	Number of Fatalities and Fatality Rates Percentage of highway fatalities that are alcohol-related Highways fatalities per 100 million vehicle miles of traveled Number of fatalities involving large trucks Number of recreational boating fatalities Rail-related fatalities per million train-miles Transit fatalities per 100 million passenger miles traveled Number of bicyclists and pedestrians killed Percent of all mariners in imminent danger who are rescued Number of Injuries and Injury Rates Number of injured persons involving large trucks Persons injured on the highway per 100 million vehicle miles traveled Transit injured persons per 100 million passenger miles traveled Number of bicyclists and pedestrians injured Precursors to Fatalities and Injuries Fatal aviation accidents per 100,000 flight hours Percent of front seat occupants using seat belts Train accidents per million train miles Grade crossing accidents divided by the product of 1) million train miles and 2) trillion vehicle miles of traveled Failures of natural gas transmission pipelines Number of serious hazardous material incidents Number of general aviation fatal accidents Number of fatal aviation accidents (commercial air carriers) per 100,000 flight hours Number of runway incursions Aviation operational errors per 100,000 facility activities Number of high-risk passenger fatalities on passenger vessels

6.7 Data Capacity

The candidate performance measures in Table 6.6 above include measures utilized in DOT's 2001 Performance Plan and new candidate measures. DOT has developed data for each measure, and has published source and accuracy statements for each of the data systems used for constructing these measures.[4] We have described the scope of each measure, the limitations of the data and the statistical issues regarding uncertainty in the measurement.[5] Led by the Bureau of Transportation Statistics (BTS), DOT's Operating Administrations are implementing a plan for verification and validation of all D0T data used in implementing GPRA and for other analytical purposes.[6] DOT is committed to continuous improvement in the accuracy, reliability and timeliness of transportation safety data and will execute the plan described below.

[4] See www.bts.gov
[5] See Appendix I DOT 2001 Performance Plan
[6] See page 161 DOT 2001 Performance Plan

Safety Data Improvement Plan
DOT will focus a major effort over the next several years on improvements to its safety data. Safety has always been our preeminent strategic goal, and DOT's Transportation Safety Conference held in 1999 highlighted the need for better data. As a result, DOT created a Safety Data Task Force. A series of four workshops was held in the Fall of 1999, followed by a Safety Data Conference in April 2000. Out of these workshops DOT produced a Safety Data Action Plan to organize data improvement efforts. BTS is the lead agency for implementation.

- By September 30, 2000 we will develop plans for major research projects to: 1) develop common criteria for reporting injuries and deaths; 2) develop common data on accident circumstances; 3) improve data quality; 4) develop better data on accident precursors; 5) expand the collection of near-miss data to all modes; 6) develop a variety of common denominators for safety measures; 7) advance the timeliness of safety data; 8) link safety data with other data; 9) explore options for using technology in data collection; and 10) expand, improve and coordinate safety data analysis.
- By September 30, 2001 we will complete implementation plans for these projects and implement those that can be done with available resources.
- By December 31, 2001 we will begin implementing all of the plans in each of the ten research areas, subject to availability of resources.

6.8 Cross-Cutting Programs

DOT's staff seeks opportunities to partner with a wide variety of public and private organizations to achieve our preeminent safety goal. Below we present a selection of active partnerships that are targeted to our safety outcomes -- reducing transportation fatalities and injuries.

6.8.1 Safety Belt Use and Occupant Protection

Goal: The goal of this Presidential initiative is to increase safety belt use nation-wide and provide technical assistance in meeting the requirements of Executive Order 13043.
Agencies Involved: DOT/ NHTSA lead, Department of the Interior (national parks), Department of Defense, Tribal Governments, and federal agencies and state governments, and numerous national organizations.

6.8.2 Drug-free Workplace

Goal: Create drug-free workplaces that reduce drinking and drug use by transportation workers.
Agencies Involved: DOT/ODAPC lead, Departments of Health and Human Services and Labor, National Transportation Safety Board, and Office of National Drug Control Policy.

6.8.3 Drinking and Using Drugs While Driving

Goal: To reduce the incidence of drinking and using drugs while driving.
Agencies Involved: DOT/NHTSA lead, Departments of Health and Human Services and Justice, Office of Drug Control Policy.

6.8.4 Aviation Safety Research

Goal: To leverage FAA and National Aeronautics and Space Administration R&D resources to reduce the fatal accident rate for U.S. commercial air carriers.
Agencies Involved: DOT/FAA lead, National Aeronautics and Space Administration, National Transportation Safety Board.

6.8.5 Recreational Boating

Goal: To reduce recreational boating fatalities by promoting safe practices.
Agencies Involved: DOT/USCG lead, Army Corps of Engineers, National Park Service, the Boat U.S. Foundation, the National Safe Boating Council, the National Association of State Boating Law Administrators and others.

6.8.6 Safety Data Improvement

Goal: To improve transportation safety by improving the quality, timeliness, comparability, completeness and utility of safety data.
Agencies Involved: DOT/BTS lead, National Transportation Safety Board, National Aeronautics and Space Administration, Transportation Research Board, state and local government, industry.

6.8.7 Hazardous Materials Safety

Goal: Improve hazardous materials safety by facilitating improved strategic planning, program coordination and effective program delivery.
Agencies Involved: DOT/Office of Intermodalism lead, RSPA, FAA, FMCSA, USCG, FRA, Departments of Defense, Energy, and Health and Human Services, U.S. Bureau of Alcohol, Tobacco and Firearms, Environmental Protection Agency, Occupational Health and Safety Administration, U.S. Customs Service, U.S. Postal Service, Centers for Disease Control and Prevention, state governments, police and firefighter organizations, and industry.

6.8.8 Injury Prevention and Control

Goal: To conduct complementary research on injury prevention and related issues.
Agencies Involved: DOT/NHTSA and the National Center for Injury Prevention and Control, Center for Disease Control.